

NOMENCLATURAL NOTES FOR THE NORTH AMERICAN FLORA. XIII.

John T. Kartesz & Kancheepuram N. Gandhi

North Carolina Botanical Garden, Dept. of Biology, Coker Hall, University of
North Carolina, Chapel Hill, North Carolina 27599-3280, U.S.A.

ABSTRACT

The nomenclature and taxonomy of the following are discussed: *Blastania*, *Caltha palustris* var. *flabellifolia*, *Chaenomeles*, *Choenomeles*, *Ctenolepis*, *Heracleum lanatum*, *H. mazimum*, *Coincya monensis* var. *recurvata*, *Frangula*, *Laburnum*, *Physalis izocarpa*, *Physalis philadelphica*, *Prunus pumila* vars. *cuneata* and *susquehanae*, *Ranunculus glaberrimus* var. *reconditus*, *Rhamnus*, *Rhamnus davurica* and *Rhamnus citrifolia*. Fourteen new combinations and one *status novum* are proposed: *Frangula betulifolia* (E. Greene) V. Grub. ssp. *obovata* (Kearney & Peebles) Kartesz & Gandhi, *comb. nov.*; *Frangula* × *blumeri* (E. Greene) Kartesz & Gandhi, *comb. nov.*; *Frangula californica* (Eschsch.) A. Gray ssp. *crassifolia* (Jepson) Kartesz & Gandhi, *comb. nov.*; *Frangula californica* ssp. *cuspidata* (E. Greene) Kartesz & Gandhi, *comb. nov.*; *Frangula californica* ssp. *occidentalis* (T.J. Howell) Kartesz & Gandhi, *comb. nov.*; *Frangula californica* ssp. *toментella* (Benth.) Kartesz & Gandhi, *comb. nov.*; *Frangula californica* ssp. *ursina* (E. Greene) Kartesz & Gandhi, *comb. nov.*; *Frangula rubra* (E. Greene) V. Grub. ssp. *modocensis* (C.B. Wolf) Kartesz & Gandhi, *comb. nov.*; *Frangula rubra* ssp. *nevadensis* (A. Nels.) Kartesz & Gandhi, *comb. nov.*; *Frangula rubra* ssp. *obtusissima* (E. Greene) Kartesz & Gandhi, *comb. nov.*; *Frangula rubra* ssp. *yosemitana* (C.B. Wolf) Kartesz & Gandhi, *comb. nov.*; *Frangula sphaerosperma* (Sw.) Kartesz & Gandhi, *comb. nov.*; *Frangula sphaerosperma* ssp. *longipes* (M.C. & L.A. Johnston) Kartesz & Gandhi, *comb. nov.*; *Physalis ixocarpa* Brot. ex Hornem. var. *immaculata* (Waterfall) Kartesz & Gandhi, *comb. nov.* and var. *parviflora* (Waterfall) Kartesz & Gandhi, *comb. nov.*; *Rhamnus davurica* Pallas ssp. *nipponica* (Makino) Kartesz & Gandhi, *comb. nov.*; *R. lanceolata* Pursh ssp. *glabrata* (Gleason) Kartesz & Gandhi, *stat. nov.*

KEY WORDS: varietal autonyms, Apiaceae, Brassicaceae, Cucurbitaceae, Fabaceae, Ranunculaceae, Rhamnaceae, Rosaceae, Solanaceae, *Blastania*, *Coincya*, *Caltha*, *Chaenomeles*, *Choenomeles*, *Ctenolepis*, *Frangula*, *Heracleum*, *Laburnum*, *Physalis*, *Prunus*, *Ranunculus*, *Rhamnus*

INTRODUCTION

Continuing with the "NOMENCLATRURAL NOTES FOR THE NORTH AMERICAN FLORA" (Kartesz & Gandhi 1989; 1990a, b, c; 1991a, b, c, d; 1992a, b, c, d), a thirteenth note in the series is presented here toward advancing our understanding of North American plants.

APIACEAE

Heracleum mazimum and *H. lanatum*

Contrary to Fernald's (1950, p. 1104) and Voss' (1985, p. 661) treatments of the Cow-parsnip as *Heracleum mazimum* Bartr. (published in 1791), Gleason & Cronquist (1991, p. 382) accepted the name *H. lanatum* Michx. (published in 1803) for this species and cited *H. mazimum* as its synonym. Regarding the usage of one name over another, the dispute is not over the taxonomy, nor over name priority, but rather over the validity of Bartram's binomials published in his 1791 work. A brief discussion is here provided.

Bartram (1791), in his work titled "*Travels through North and South Carolina . . .*", published 49 new binomials (Wilbur 1971). At the same time he also used a few polynomials (e.g., p. 378, "*Pinus palustris, foliis trinis longissimis, strobilo elongato . . .*"). Due to his occasional use of polynomials, the validity of the 49 binomials has been in dispute. Based on Art. 68.4 of the 1935 Code (see Camp 1947; presently *International Code of Botanical Nomenclature* (ICBN) Art. 23.6c; Greuter 1988), Rickett (1944) rejected Bartram's binomials. However, Merrill (1945) and Wilbur (1971) stated that such occasional usage of polynomials are also found in Linnaeus (1753; e.g., p. 213: *Apocynum fol. androesimifolium*) and in P. Miller (1768; e.g., *Alchemilla foliis lobatis sericeis acutis, Aloe foliis erectis subulatis radicatis undique inerme spinosis, Asparagus caule herbaceo erecto, foliis setaceis*).

Both Merrill (1945) and Wilbur (1971) argued that Bartram's usage of polynomials was an exception rather than a rule, and therefore, his new binomials should be treated as valid. Wilbur listed Bartram's 49 new binomials. We concur with Merrill and Wilbur, and conclude that the name *Heracleum mazimum* was validly published in Bartram's work.

Heracleum mazimum Bartr., *Travels*. 344. 1791.

SY: *Heracleum lanatum* Michx., *Fl. Bor. Amer.* 1:166. 1803.

BRASSICACEAE

Coincya monensis var. *recurvata*

Coincya monensis (L.) Greuter & Burdet, a European native, has become established in Pennsylvania, and New Jersey, and southward to North Carolina. The North American expression of this species is referable to var. *recurvata* (Rollins 1993, p. 329). Regarding the nomenclature of this variety, our analysis follows.

Leadlay & Heywood (1990, pp. 370-380) recognized four varieties within the protologue of the new combination *Coincya monensis* ssp. *recurvata* (All.) Leadlay. They (p. 375) did not cite authorship for var. *recurvata*. It appears as though these authors treated var. *recurvata* as a typical expression of ssp. *recurvata* and considered that authorship was unnecessary for the varietal autonym. Although permitted prior to the Sydney Congress, this practice is unacceptable under the present *Code*, i.e., the name *Coincya monensis* var. *recurvata* represents an autonym of a non-typical subspecies.

We (Kartesz & Gandhi, *Taxon* 40:308-310. 1991.) argued that varietal autonoms of non-typical subspecies must be treated as validly published, which was opposed (see *Taxon* 41:158. 1992.). We (*Taxon* 41:784. 1993.) countered the opposition by proposing that a new Art. 32.9, along with an example be added to the *Code*. The Tokyo Congress referred the example to the Editorial Committee of the *ICBN* for consideration (see *Taxon* 42:916. 1994.).

In light of the above situation, we consider the varietal autonym *Coincya monensis* var. *recurvata* to be validly published.

Coincya monensis (L.) Greuter & Burdet ssp. *recurvata* (All.) Leadlay, J. Linn. Soc. Bot. 102:370. 1990. BASIONYM: *Synapsis recurvata* All., *Fl. Pedem.* 1:2654. 1785.

Coincya monensis (L.) Greuter & Burdet var. *recurvata* (All.) Leadlay, J. Linn. Soc. Bot. 102:375. 1990. BASIONYM: *Synapsis recurvata* All., *Fl. Pedem.* 1:2654. 1785.

CUCURBITACEAE

Blastania, *Ctenolepis*

Ctenolepis cerasiformis (Stocks) Hook.f., a native of tropical Africa, has been reported for Maryland. For this taxon, Meeuse (1962, p. 12) used the name *Blastania cerasiformis* (Stocks) A. Meeuse. In our study, we found that the genus *Blastania* Kotschy & Peyritsch has been treated as a taxonomic synonym of *Ctenolepis* Hook.f. (Hutchinson 1954; Welman 1987, p. 201) or vice versa (Meeuse, p. 11). Our analysis follows.

Regarding the effective publication of the genus *Blastania* Kotschy & Peyritsch, Jackson (1895) and Meeuse (1962, p. 11) mentioned the date to be 1865-66, whereas C. Jeffrey (KEW; pers. comm.) believes the date to be Oct 1867. However, we concur with Stafleu & Cowan (1979), who stated the publication date of Kotschy & Peyritsch's work to be Jul 1867.

For *Ctenopsis* Naudin (published in 1866, *non de Notaris* 1847), Hooker (in Bentham & Hooker, Sep 1867, p. 832) published *Ctenolepis* Hook.f. as a substitute name. With this analysis, we assert that the name *Blastania* is older than the name *Ctenolepis*.

Since *Blastania* and *Ctenolepis* represent the same entity and since *Blastania* has priority over *Ctenolepis*, the former should be accepted to be the correct name. To date, *Ctenolepis* has not been conserved over *Blastania*. In this situation, *Ctenolepis* should be treated as a heterotypic taxonomic synonym of *Blastania*.

Blastania cerasiformis (Stocks) A. Meeuse, *Bothalia* 8:12. 1962. BASIONYM: *Zehneria cerasiformis* Stocks, *J. Bot. Kew Gard. Misc.* 4:149. 1852. SY: *Ctenolepis cerasiformis* (Stocks) Hook.f., *Fl. Trop. Africa* 1:178. 1871.

FABACEAE

Laburnum

The Golden-chain tree (*Laburnum anagyroides* Medik.), a European native and extensively used in horticultural plantings in the eastern United States, has been reported as an escape in Massachusetts and elsewhere. The name *Laburnum anagyroides* was based on *Cytisus laburnum* L. The genus name *Laburnum* has been attributed either to Fabricius (Frodin & Heywood in Tutin, et al. 1968; Greuter 1989; Wiersema 1990; Brummitt 1993) or to Medikus (Jackson 1895).

Within Fabaceae, Fabricius (1759) proposed the genus name *Laburnum*, but did not designate a type. Twenty eight years later, Medikus (see below) proposed *Laburnum* as a new genus within Fabaceae. Pfeiffer (*Nom.* 2[1]:1874) lectotypified *Laburnum* Medik. by *L. anagyroides* Medik. All those

who recognize *Laburnum* Fabr. include *L. anagyroides* within it. Regarding the nomenclature of *Laburnum*, our analysis is given below.

If the name *Laburnum* Fabr. was validly published, then *Laburnum* Medik. is a later homonym. *Laburnum* Medik. is not an isonym, since its type is not that of *Laburnum* Fabr. (To the best of our knowledge, the latter has not been typified.). Dandy (1967) stated that Fabricius provided a diagnostic key for all generic names. Furthermore, some generic names were provided with descriptions or references to earlier published descriptions. Stafleu & Cowan (1976, pp. 810-811) concurred with Dandy's assessment that validation of Fabricius' generic names by means of author reference or by means of key are in full agreement with the *Code*. However, the nomenclatural validity of such names was questioned by Rauschert (1968) and Holub (1970).

In his detailed analysis of Fabricius' work, Holub (1970) concluded that not all of the generic names were validly published in that work. Regarding the generic names for which Fabricius either provided descriptions or references to earlier published descriptions, Holub considered them to be valid. Other names, appearing to be generic, but lacking validating descriptions, were treated by Holub to be uninomial designations of species (not true generic names; see *ICBN* Art. 20.4b, Ex. 10; Greuter 1988). Holub (pp. 84-86) divided all generic names (listed in Fabricius' work) into eight groups. He listed 120 invalid generic names (i.e., uninomial designations) within groups 1-6, and listed 32 valid generic names within groups 7 and 8. He treated the name *Laburnum* as a uninomial designation within group 3.

We concur with Holub's analysis, and treat *Laburnum* Fabr. as a unitary name. However, if some author were to use *Laburnum* Fabr. as a genus (prior to Medikus' 1787 work), then inadvertently, the unitary name would become a valid generic name. In the absence of such evidence, we accept *Laburnum* Medik. as a legitimate generic name.

Laburnum Medik., Vorles. Churpfalz. Phys.-Ocon. Ges. 2:363. 1787.

RANUNCULACEAE

Caltha palustris var. *palustris*, var. *radicans*, var. *flabellifolia*

Smit (1973, pp. 141-142) assigned the expression of *Caltha palustris* L., found mostly in Europe, Russia (?Cape Serdtze), Sakhalin, Kuril Islands, Japan, Alaska, and the Yukon territories of Canada, to var. *radicans* (Forst.) Beck. She cited *C. palustris* var. *flabellifolia* (Pursh) Torr. & Gray (based on *C. flabellifolia* Pursh) with its type from Pennsylvania, as a synonym. However, she (p. 143) did not include Pennsylvania within the range of var. *radicans*.

Gray (1895, p. 39) treated *Caltha palustris* var. *flabellifolia* as a synonym of the typical expression of *C. palustris*. Probably unaware of Beck's combination,

Gray proposed *C. palustris* var. *radicans* as a "new var." based upon *C. radicans*, and thus created an isonym.

Keener (Blumea 23:161. 1976.) stated that *Caltha palustris* var. *flabellifolia* is the correct name for the above complex, since the preceding varietal name has priority over *C. palustris* var. *radicans* at varietal rank (see below). Clapham (1987, p. 33), perhaps following Keener, assigned the British Isles' *C. palustris* [previously known as *C. palustris* var. *radicans* (Forst.) Beck] to var. *flabellifolia*. Akeroyd (in Tutin, et al. 1993, p. 254) merely mentioned the name *C. palustris* var. *radicans*, but did not mention the name *C. palustris* var. *flabellifolia*. Furthermore, he erred in attributing the name *C. palustris* var. *radicans* to (Forst.) Hook.

We believe that Gray was correct in his assessment of the type of *Caltha flabellifolia* belonging to *C. palustris* var. *palustris*. For the North American flora, we recognize two varieties within *C. palustris* as given below.

Caltha palustris L. var. *palustris*.

SY: *Caltha flabellifolia* Pursh, *Fl. Amer. Sept.* 390. 1814. *Caltha palustris* L. var. *flabellifolia* (Pursh) Torr. & Gray, *Fl. N. Amer.* 1:27. 1838.

Caltha palustris L. var. *radicans* (Forst.) Beck, *Verh. Zool. Bot. Gesellsch. Wien* 36:350. 1886. BASIONYM: *Caltha radicans* Forst., *Trans. Linn. Soc.* 8:324. 1807.

Ranunculus L.

Based on the belief that *Ranunculus triternatus* A. Gray (published in 1886) was a later homonym of *R. triternatus* Poir. (published in 1815), Nelson & Macbride (*Bot. Gaz.* 56:473. 1913.) proposed *R. reconditus* as a nom. nov. for Gray's taxon. When Benson (*Amer. J. Bot.* 23:170. 1936) reduced Gray's taxon as a variety under *R. glaberrimus* Hook., he believed that the epithet "*triternatus*" was not available for a transfer and therefore, chose the epithet "*reconditus*." However, eighteen years later, Benson (*Amer. Midl. Naturalist* 52:357. 1954.) realized that the name *R. triternatus* Poir. was invalidly published and that *R. triternatus* A. Gray was legitimate when published. This disposition rendered the name *R. reconditus* Nels. & Macbr. illegitimate (i.e., superfluous). Benson also realized that his earlier choice of the epithet "*reconditus*" at varietal rank was final; however, he failed to omit the parenthetical authorship for the var. *reconditus* (see *ICBN Art.* 72.2 Note 1). The correct authorship of var. *reconditus* is given below.

Ranunculus glaberrimus Hook. var. *reconditus* Benson, Amer. J. Bot. 23:170. 1936. BASIONYM: *Ranunculus reconditus* Nels. & Macbr., Bot. Gaz. 56:473. 1913, *nom. superfl.*

SY: *Ranunculus triternatus* A. Gray, Proc. Amer. Acad. Arts 21:370. 1886.

RHAMNACEAE

Frangula and *Rhamnus*

Ever since P. Miller (1768) proposed the genus *Frangula*, its disposition has varied. It was treated either as a subgenus or section of the genus *Rhamnus* L. (De Candolle 1825; Torrey & Gray 1838; Bentham & Hooker 1862; Weberbauer 1896; C. B. Wolf 1938; Johnston & Johnston 1978) or as a distinct genus (Martius 1861; V.I. Grubov 1949a, b; Tutin, *et al.* 1968; Weber 1990; Weber & Wittmann 1992).

Gray's treatment on the rank of *Frangula* varied. In Torrey & Gray (1838), *Frangula* was included within *Rhamnus*. However, in his independent works (1856-1867), Gray recognized *Frangula* as a distinct genus. But this position was reversed in Gray's 1889 work (which was revised by Watson & Coulter).

The traditional morphological separation of *Frangula* and *Rhamnus* has been as shown in Table 1 (based on our specimen observation and literature from the authors listed above).

Regarding the comparison of the above two genera, Johnston & Johnston (pp. 5-6) also provided a table summarizing the differences. They (p. 3) argued that *Frangula* "is exceedingly closely related to *Rhamnus*, more closely in fact than either group is to other taxa of the family." Furthermore, they stated that the recognition of a rank within a complex such as this "is not a scientific question, but one depending on tradition, usage and the practical consideration of the optimization of communication." They chose to treat *Frangula* as a subgenus within *Rhamnus*. These authors were critical of the European works on this complex remarking that "this tendency to recognize segregate genera seems to be fashionable in Europe."

Historically, the segregation or lumping of genera was an author's choice based primarily upon morphology. In modern literature, morphological differences are complemented with support from other areas, such as cytology, genetics, cladistics, phenetics, and protein and DNA analyses. For the segregation of *Frangula* from *Rhamnus*, Grubov (1949b) added the anatomical difference (*vide* Johnston & Johnston 1978): "the vessels have a different distribution in the xylem of *Frangula* than in that of the rest of *Rhamnus*."

In most of the recent North American floristic literature (excluding Weber 1990; Weber & Wittmann 1992), *Frangula* has been treated as a subgenus

Table 1. Comparison of *Rhamnus* and *Frangula*.

	<i>Frangula</i>	<i>Rhamnus</i>
Bud Scales	Absent	Present
Thorns	Absent	Present or absent
Leaf Pinnate Nerves	Almost straight	Often arcuate
Inflorescence	Umbels, fascicles, or flowers solitary	Racemes, fascicles, or flowers solitary
Flowers	Bisexual & mostly 5-merous	Mostly unisexual & 4-merous
Sepals	Mostly erect, fleshy keeled ventrally	Spreading, thin unkeeled
Petals	Well-developed, short-clawed	Usually small, often absent in pistillate
Anthers	Equalling filaments	Much shorter than filaments
Ovary	2 or 3-locular	2 or 4-locular
Style	Usually unbranched & not exerted	3- or 4-branched & exerted
Seeds	Smooth	Grooved outside
Raphe Position	Lateral	Apical
Cotyledons	Thick, straight	Thin, usually curved
Endosperm	Scanty	Abundant

within *Rhamnus*. However, we concur with Grubov (1949b), Tutin, *et al.* (1968), and Weber & Wittman (1992) in treating *Frangula* and *Rhamnus* as distinct genera. We assert that the differences summarized in the above table warrant the restoration of generic status to *Frangula*, which necessitates the following new combinations.

Frangula betulifolia (E. Greene) V. Grub. ssp. *obovata* (Kearney & Peebles) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Rhamnus betulifolia* E. Greene var. *obovata* Kearney & Peebles, J. Wash. Acad. Sci. 29:486. 1939.

Frangula* × *blumeri (E. Greene) Kartesz & Gandhi, *comb. nov. (pro sp.)* [*betulifolia* × *californica*]. BASIONYM: *Rhamnus blumeri* E. Greene, Leaf. Bot. Obs. & Crit. 2:266. 1912.

Frangula californica (Eschsch.) A. Gray ssp. *crassifolia* (Jepson) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Rhamnus californica* Eschsch. var. *crassifolia* Jepson, Fl. Pl. Calif. 615. 1925. SY: *Rhamnus californica* Eschsch. ssp. *crassifolia* (Jepson) C.B. Wolf, N. Amer. Sp. Rhamnus 68. 1938. *Rhamnus tomentella* Benth. ssp. *crassifolia* (Jepson) O. Sawyer, Madroño 40:65. 1993.

Frangula californica (Eschsch.) A. Gray ssp. **cuspidata** (E. Greene) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Rhamnus cuspidata* E. Greene, Leaf. Bot. Obs. & Crit. 1:64. 1904. SY: *Rhamnus californica* Eschsch. ssp. *cuspidata* (E. Greene) C.B. Wolf, *N. Amer. Sp. Rhamnus* 72. 1938. *Rhamnus tomentella* Benth. ssp. *cuspidata* (E. Greene) O. Sawyer, *Madroño* 40:65. 1993.

Frangula californica (Eschsch.) A. Gray ssp. **occidentalis** (T.J. Howell) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Rhamnus occidentalis* T.J. Howell, *Pittonia* 2:15. 1899. SY: *Rhamnus californica* Eschsch. ssp. *occidentalis* (T.J. Howell) C.B. Wolf, *N. Amer. Sp. Rhamnus* 66. 1938. *Rhamnus californica* Eschsch. var. *occidentalis* (T.J. Howell) Jepson, *Fl. Pl. Calif.* 615. 1925.

Frangula californica (Eschsch.) A. Gray ssp. **tomentella** (Benth.) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Rhamnus tomentella* Benth., *Pl. Hartw.* 303. 1848. SY: *Rhamnus californica* Eschsch. ssp. *tomentella* (Benth.) C.B. Wolf, *N. Amer. Sp. Rhamnus* 70. 1938.

Frangula californica (Eschsch.) A. Gray ssp. **ursina** (E. Greene) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Rhamnus ursina* E. Greene, Leaf. Bot. Obs. & Crit. 1:63. 1904. SY: *Rhamnus californica* Eschsch. ssp. *ursina* (E. Greene) C.B. Wolf, *N. Amer. Sp. Rhamnus* 74. 1938. *Rhamnus californica* Eschsch. var. *ursina* (E. Greene) McMinn, *Ill. Man. Calif. Shrubs* 329. 1939. *Rhamnus tomentella* Benth. ssp. *ursinus* (E. Greene) O. Sawyer, *Madroño* 40:65. 1993.

Frangula rubra (E. Greene) V. Grub. ssp. **modocensis** (C.B. Wolf) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Rhamnus rubra* E. Greene ssp. *modocensis* C.B. Wolf, *N. Amer. Sp. Rhamnus* 89. 1938.

Frangula rubra (E. Greene) V. Grub. ssp. **nevadensis** (A. Nels.) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Rhamnus nevadensis* A. Nels., *Proc. Biol. Soc. Wash.* 18:174. 1905. SY: *Rhamnus rubra* E. Greene ssp. *nevadensis* (A. Nels.) C.B. Wolf, *N. Amer. Sp. Rhamnus* 86. 1938.

Frangula rubra (E. Greene) V. Grub. ssp. **obtusissima** (E. Greene) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Rhamnus obtusissima* E. Greene, Leaf. Bot. Obs. & Crit. 1:64. 1904. SY: *Rhamnus rubra* E. Greene ssp. *obtusissima* (E. Greene) C.B. Wolf, *N. Amer. Sp. Rhamnus* 88. 1938.

Frangula rubra (E. Greene) V. Grub. ssp. **yosemitana** (C.B. Wolf) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Rhamnus rubra* E. Greene ssp. *yosemitana* C.B. Wolf, *N. Amer. Sp. Rhamnus* 90. 1938.

Frangula sphaerosperma (Sw.) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Rhamnus sphaerosperma* Sw., *Prodr. Veg. Ind. Occ.* 50. 1788.

Frangula sphaerosperma (Sw.) Kartesz & Gandhi ssp. **longipes** (M.C. & L.A. Johnston) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Rhamnus sphaerosperma* Sw. var. *longipes* M.C. & L.A. Johnston, *Fl. Neotrop. Monogr.* 20:62. 1978.

Rhamnus davurica and *R. citrifolia*

Hess & Stearn (1979) replaced the name *Rhamnus davurica* Pallas (published in 1776), a widespread species in southeastern Asia and introduced elsewhere, with their new combination *R. citrifolia* (Weston) Hess & Stearn, based on *Cornus citrifolia* Weston (published in 1770). These authors also made a new varietal combination in *R. citrifolia*: var. *nipponica* (Makino) Hess & Stearn, based on *R. davurica* var. *nipponica* Makino. Hess & Stearn's nomenclature was followed by Pratt (1980), and Gleason & Cronquist (1991, p. 342). Unfortunately, Hess & Stearn's combination is a later homonym of *R. citrifolia* Rusby (1907, p. 340), a South American taxon. These two identical names belong to two different genera: Weston's taxon is a *Rhamnus*, whereas Rusby's taxon is a *Frangula* (e.g., *F. citrifolia* (Rusby) V. Grub., *Trudy Bot. Inst. Akad. Nauk SSSR*, ser. 1. 8:276. 1949.).

Since Hess & Stearn's combination is illegitimate, the name *Rhamnus davurica* is reinstated here in place of *R. citrifolia* (Weston) Hess & Stearn (see the nomenclature given below), and a new subspecific combination is made here.

Rhamnus davurica Pallas, *Reise Prov. Russ.* 3:721. 1776 as 'davuricus'; Grubov, *Fl. URSS* 14:658, t. 36, f. 4. 1949. SY: *Rhamnus cathartica* L. var. *davurica* (Pallas) Maxim., *Mem. Acad. Sci. St. Petersburg.* 7(11):9. 1886. *Cornus citrifolia* Weston, *Univ. Bot.* 1:74. 1770. *Rhamnus citrifolia* (Weston) Hess & Stearn, *Taxon* 28:555. 1979, *non* Rusby, 1907.

Rhamnus davurica Pallas ssp. **nipponica** (Makino) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Rhamnus davurica* Pallas var. *nipponica* Makino, *Bot. Mag. Tokyo* 18:98. 1904. SY: *Rhamnus citrifolia* (Weston) Hess & Stearn var. *nipponica* (Makino) Hess & Stearn, *Taxon* 28:556. 1979.

Rhamnus lanceolata

Within *Rhamnus* species, we recognize subspecific (rather than varietal) rank, and therefore elevate *Rhamnus lanceolata* var. *glabrata* to subspecific rank as given below.

Rhamnus lanceolata Pursh ssp. **glabrata** (Gleason) Kartesz & Gandhi, *stat. nov.* BASIONYM: *Rhamnus lanceolata* Pursh var. *glabrata* Gleason, *Phytologia* 2:288. 1947.

ROSACEAE

The genus name *Chaenomeles* Lindl. was originally spelled *Choenomeles* by Lindley in 1821. In 1830, Bartling altered the name to *Chaenomeles*. This change in spelling was adopted by Lindley himself and most later authors. Wijnands (1990) proposed the conservation of the current usage of the spelling (i.e., *Chaenomeles*). However, based on *ICBN* Art. 73.3, we opted to use the original spelling, as did Zander's *Handwörterbuch*, ed. 13. 1984. The *ICBN* Committee for Spermatophyta (Taxon 42:877. 1993) recommended the conservation of the spelling *Chaenomeles*. The committee also stated that the change in spelling was allowed by Art. 73.1. We accept the committee's recommendation.

Chaenomeles Lindl., *Trans. Linn. Soc. London* 13:96. 1821. ("Choenomeles").

Prunus pumila var. *susquehanae*

In the protologue of *Prunus pumila* L. (the Sand-cherry), Gleason & Cronquist (1991, p. 260) included four varieties. For var. *cuneata* (Raf.) L.H. Bailey, they cited *P. susquehanae*, without authorship, as a synonym. However, Groh & Senn (1940, p. 332) used the name *P. pumila* L. var. *susquehanae* (hort. ex Willd.) Jaeg. and cited *P. pumila* var. *cuneata* (Raf.) Bailey as its synonym. We conclude that Groh & Senn were correct in their assessment as delineated below.

Prunus pumila L. var. *susquehanae* (hort. ex Willd.) Jaeg., *Ziergehoelze der Garten und Parkanlagen* 400. 1865. BASIONYM: *Prunus susquehanae* hort. ex Willd., *Enum. Pl. Hort. Berol.* 519. 1809. SY: *Prunus cuneata* Raf., *Ann. Nat.* 11: 1820. *Prunus pumila* L. var. *cuneata* (Raf.) L.H. Bailey, *Cycl. Amer. Hort.* 1451. 1901.

SOLANACEAE

Physalis izocarpa, *P. philadelphica*

Regarding the occurrence of *Physalis izocarpa* Brot. ex Hornem. in North America (north of México), Waterfall (1958, p. 160) gave its Canadian range as Ottawa and its US range as CA, DC, DE, MA, MD, NJ, NM, NY, OR, PA, TX, VA, VT, WA, and WV. He did not mention the species *P. philadelphica* Lam., which is found in México and Central America. However, in his treatment of *Physalis* in México, Central America, and West Indies, Waterfall (1967, p. 213) cited *P. izocarpa* as a synonym of *P. philadelphica*. Furthermore, Waterfall recognized two varieties within *P. philadelphica*: var. *immaculata* and var. *parviflora*. Gleason & Cronquist (1991, p. 403) followed Waterfall's 1967 treatment and stated that *P. philadelphica* occasionally escaped from cultivation in the northeastern United States.

Based on her morphological and cytological analyses, Fernandes (1970, pp. 357-366) segregated *Physalis izocarpa* from the *P. philadelphica* complex. She stated that *P. izocarpa* has small flowers (calyx 4.00-5.25 mm long, 2.5-3.5 mm wide; corolla 5-10 mm in diameter; filaments 1.00-2.50(-2.75) mm long; anthers 1.25-1.75(-2.00) mm long; style 1.75-3.00 mm long), clavate stigma, and satellited chromosomes. The species *P. philadelphica* (mentioned as *P. izocarpa* auct. non Brot. ex Hornem.) has large flowers (calyx ca. 8 mm long and 10 mm wide; corolla (10-)13-25(-30) mm in diameter; filaments ca. 5 mm long; anthers 3-4 (-5) mm long; style ca. 8 mm long), and lacks satellited chromosomes. Hudson (1983, p. 13; 1986, p. 417), who accepted Fernandes' conclusion, stated that *P. philadelphica* vars. *immaculata* and *parviflora* are self-compatible, and do not cross with *P. philadelphica* var. *philadelphica*, which is self-incompatible. He concluded that vars. *immaculata* and *parviflora* of *P. philadelphica* should be referred to *P. izocarpa*.

Based on Fernandes' and Hudson's findings, we treat *Physalis izocarpa* and *P. philadelphica* as two distinct species, and exclude *P. philadelphica* from North America, north of México. Furthermore, we transfer vars. *immaculata* and *parviflora* to *P. izocarpa*, and make the two new combinations given below.

Physalis izocarpa Brot. ex Hornem., *Suppl. Hort. Bot. Hafn.* 26. 1819.

Physalis ixocarpa Brot. ex Hornem. var. *immaculata* (Waterfall) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Physalis philadelphica* Lam. var. *immaculata* Waterfall, *Rhodora* 69:215. 1967.

Physalis ixocarpa Brot. ex Hornem. var. *parviflora* (Waterfall) Kartesz & Gandhi, *comb. nov.* BASIONYM: *Physalis philadelphica* Lam. var. *parviflora* Waterfall, *Rhodora* 69:215. 1967.

ACKNOWLEDGMENT

The authors thank Drs. Guy Nesom (TEX) and Larry E. Brown (Houston Community College) for their review of this article. The authors also thank Dr. Thomas Duncan (UC) for permitting the senior author to assess the specimens of *Frangula* and *Rhamnus*.

REFERENCES

- Bartram, W. 1791. *Travels Carolina*. James & Johnson, Philadelphia, Pennsylvania.
- Bentham, G. & J.D. Hooker. 1862-67. *Gen. Pl.* vol. 1. A. Black, London, Great Britain.
- Brummitt, R.K. 1993. *Vascular Plant Families and Genera*. Royal Botanic Gardens, Kew, Great Britain.
- Camp, W.H., et al. 1947. *International Rules of Botanical Nomenclature* (compiled from various sources). *Brittonia* 6:1-120.
- De Candolle, A.P. 1825. *Prodr.*, vol. 2. Treuttel & Wurtz, Paris, France.
- Clapham, A.R., et al. 1987. *Flora of British Isles*, ed. 3. Cambridge University Press, Cambridge, Great Britain.
- Dandy, J.E. 1967. Index of generic names of vascular plants 1753-74. *Regnum Veg.* vol. 51. Utrecht, The Netherlands.
- Fabricius, P.C. 1759. *Enum. Litteris Ioannis Drimbornii*, Helmstedt.
- Fernald, M.L. 1950. *Gray's Man. Bot.*, ed. 8. American Book Co., New York, New York.
- Fernandes, R.B. 1970. Sur l'identification d'une espece de *Physalis* sous-pontanee au Portugal. *Bol. Soc. Brot.* 44:343-366.
- Gleason, H.A. & A. Cronquist. 1991. *Man. Vasc. Pl. NE US.*, ed. 2. The New York Botanical Garden, Bronx, New York.
- Gray, A. 1856. *Man. Bot.*, ed. 2. George P. Putnam & Co., New York, New York.
- . 1867. *Man. Bot.*, ed. 5. Ivison, Blakeman, Taylor, & Co., New York, New York.

- _____. 1889. *Man. Bot.*, ed. 6. American Book Company, New York, New York.
- _____. 1895. *Syn. Fl. N. Amer.*, vol. 1, pt. (1). New York, New York.
- Greuter, W. (Ch. Ed. Comm.). 1988. *International Code of Botanical Nomenclature*. Adopted by the Fourteenth International Botanical Congress, Berlin, Jul-Aug 1987. *Regnum Veg.* vol. 118. Utrecht, The Netherlands.
- _____, et al. 1989. Med - Checklist 4, Dicotyledons (Lauraceae - Rhamnaceae). Conservatoire et Jardin botaniques, Ville de Genève, Med-Checklist Trust of OPTIMA, Geneva, Switzerland.
- Groh, H. & H.A. Senn. 1940. *Prunus* in eastern Canada. *Canad. J. Res.* 18:318-346.
- Grubov, V.I. 1949a. Rhamnales. In: V.L. Komarov, *Fl. URSS* 14:635-674.
- _____. 1949b. *Trudy Bot. Inst. Akad. Nauk SSSR*, Ser. 1, Fl. Sist. Vyss. Rast.
- Hess, W.J. & W.T. Stearn. 1979. The identity of *Cornus citrifolia* Weston. *Taxon* 28:553-556.
- Holub, J. 1970. *Lamiasrum* versus *Galeobdolon* and comments on unitary designations in Fabricius's work "Enumeratio methodica plantarum horti medici helmstadiensis." *Folia Geobot. Phytotax.*, Praha 5:61-88.
- Hudson, W.D., Jr. 1983. The relationship of wild and domesticated tomato, *Physalis philadelphica*, Lamarck (Solanaceae). Ph.D. Dissert., Indiana University, Bloomington, Indiana.
- _____. 1986. Relationships of domesticated and wild *Physalis philadelphica*. pp. 416-432. In: W.G. D'Arcy (Ed.), *Solanaceae - Biology and Systematics*. Columbia University Press, New York, New York.
- Hutchinson, J. 1954. *Fl. W. Trop. Afr.*, vol. 1(1). Revised by R.W.J. Keay. Crown Agents, London, Great Britain.
- Jackson, B.D. 1895. *Index Kew*. The Clarendon Press, Oxford, Great Britain.
- Johnston, M.C. & L.A. Johnston. 1978. *Rhamnus*. *Fl. Neotropica Monogr.* No. 20. The New York Botanical Garden, Bronx, New York.

Kartesz, J.T. 1994. *A Synonymized Checklist of the Vascular Flora of United States, Canada & Greenland*, ed. 2. Timber Press, Inc., Portland, Oregon.

——— & K.N. Gandhi. 1989. Nomenclatural notes for the North American flora - I. *Phytologia* 67:461-468.

———. 1990a. Nomenclatural notes for the North American flora - II. *Phytologia* 68:421-427.

———. 1990b. Nomenclatural notes for the North American flora - III. *Phytologia* 69:129-137.

———. 1990c. Nomenclatural notes for the North American flora - IV. *Phytologia* 69:301-312.

———. 1991a. Nomenclatural notes for the North American flora - V. *Phytologia* 70:194-208.

———. 1991b. Nomenclatural notes for the North American flora - VI. *Phytologia* 71:58-65.

———. 1991c. Nomenclatural notes for the North American flora - VII. *Phytologia* 71:87-100.

———. 1991d. Nomenclatural notes for the North American flora - VIII. *Phytologia* 71:269-280.

———. 1991e. Varietal autonyms of nontypical subspecies validly published combinations under today's Code. *Taxon* 40:308-310.

———. 1992a. Nomenclatural notes for the North American flora - IX. *Phytologia* 72:17-30.

———. 1992b. Nomenclatural notes for the North American flora - X. *Phytologia* 72:80-92.

———. 1992c. Nomenclatural notes for the North American flora - XI. *Phytologia* 73:124-136.

———. 1992c. Nomenclatural notes for the North American flora - XII. *Phytologia* 74:43-55.

Kotschy, K.G.T. & J.J. Peyritsch. Jul 1867. *Pl. Tinn.* Vindobonae (Wien), Austria.

- Leadlay, E.A. & V.H. Heywood. 1990. The biology and systematics of the genus *Coincya* Porta & Rigo ex Rouy (Cruciferae). J. Linn. Soc. Bot. 102:313-398.
- Linnaeus, C. 1753. *Sp. Pl. Impensis Laurenti Salvii*, Stockholm, Sweden.
- Martius, C.F.P. 1861. *Fl. Bras.*, vol. 11(1). Leipzig, Germany. Facsimile ed. issued in 1965 by J. Cramer, Weinheim, Germany.
- Meeuse, A.D.J. 1962. The Cucurbitaceae of South Africa. *Bothalia* 8:1-111.
- Merrill, E.D. 1945. In defence of the validity of William Bartram's binomials. *Bartonia* 23:10-35.
- Miller, P. 1768. *Gard. Dict.*, ed. 8. London, Great Britain.
- Pratt, J.D. 1980. New England Note: a naturalized population of *Rhamnus citrifolia* in Connecticut. *Rhodora* 82:523-524.
- Rauschert, S. 1968. Zur frage der gattungsnamen bei Fabricius. *Taxon* 17:153-156.
- Rickett, H.W. 1944. Legitimacy of names in Bartram's "Travels." *Rhodora* 46:389-391.
- Rollins, R.C. 1993. *The Cruciferae of Continental North America*. Stanford University Press, Stanford, California.
- Rusby, H.H. 1905. An enumeration of the plants collected in Bolivia by Miguel Bang, part. 4. *Bull. New York Bot. Garden* 4(14):309-470.
- Smit, P.G. 1973. A revision of *Caltha* (Ranunculaceae). *Blumea* 21:119-150.
- Stafleu, F.A. & Cowan. 1976. *Taxonomic Literature*, ed. 2, vol. 1:A-G. *Regnum Veg.* vol. 94. Utrecht, The Netherlands.
- . 1979. *Taxonomic Literature*, ed. 2, vol. 2: H-Le. *Regnum Veg.* vol. 98. Utrecht, The Netherlands.
- Torrey, J. & A. Gray. 1838. *Fl. N. Amer.*, vol. 1(2). G. & C. Carvill & Co., New York, New York.
- Tutin, T.G., et al. (Eds.). 1968. *Fl. Europaea*, vol. 2. Cambridge University Press, Cambridge, Great Britain.
- et al. (Eds.). 1993. *Fl. Europaea*, vol. 1, ed. 2. Cambridge University Press, Cambridge, Great Britain.

- Voss, E.G. 1985. Michigan Flora, Part 2: Dicots (Saururaceae - Cornaceae). Cranbrook Institute of Science Bull. 59.
- Waterfall, U.T. 1958. A taxonomic study of the genus *Physalis* in North America north of Mexico. *Rhodora* 60:107-114, 128-142, 152-173.
- . 1967. *Physalis* in Mexico, Central America, and the West Indies. *Rhodora* 69:88-120; 203-239; 319-329.
- Weber, W.A. 1990. *Colorado Flora: Eastern Slope*. University Press of Colorado, Niwot, Colorado.
- & R.C. Wittmann. 1992. *Catalog of the Colorado Flora: A Biodiversity Baseline*. University Press of Colorado, Niwot, Colorado.
- Weberbauer, A. 1895-96. Rhamnaceae. Pp. 393-427. In: Engler, A. & K. Prantl (Eds.), *Die Natürlichen Pflanzenfamilien*, Teil. vol. 3, Abteilung vol. 5, Lieferung part 128, 136. Verlag von Wilhelm Engelmann, Leipzig, Germany.
- Welman, W.G. 1987. Convolvulaceae to Asteraceae. Pp. 163-253. In: G.E. Gibbs Russell, *et al.* (eds.), *List of Species of Southern African Plants*, ed. 2, pt. 2. Botanical Research Institute, Dept. of Agriculture and Water Supply, Pretoria, South Africa.
- Wiersema, J.H., *et al.* 1990. Legume (Fabaceae) Nomenclature in the USDA Germplasm System. USDA, Agr. Res. Serv. Tech. Bull. No. 1757.
- Wijnands, D.O. 1990. Proposal to conserve the spelling of 3336a *Chaenomeles* Lindley (Rosaceae). *Taxon* 39:534-535.
- Wilbur, R. 1971. A reconsideration of Bartram's binomials. *J. Elisha Mitchell Soc.* 87:56-73.
- Wolf, C.B. 1938. *N. Amer. Sp. Rhamnus*. Rancho Santa Ana Bot. Gard. Monogr. Bot. Ser. No. 1.